

Title (en)
SOLAR CELL AND METHOD FOR MANUFACTURING THE SAME

Title (de)
SOLARZELLE UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
CELLULE SOLAIRE ET SON PROCÉDÉ DE FABRICATION

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Application
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- KR 2010000858 W 20100211

Abstract (en)
A solar cell and a method for manufacturing the same are disclosed. The solar cell includes a semiconductor layer containing first impurities, a first portion positioned on a first part of one surface of the semiconductor layer, the first portion being more heavily doped with second impurities different from the first impurities than the semiconductor layer, a second portion positioned on a second part of the one surface of the semiconductor layer, the second portion being more heavily doped with the first impurities than the semiconductor layer, and a third portion positioned between the first portion and the second portion, the third portion having an impurity concentration lower than an impurity concentration of the first portion and an impurity concentration of the second portion.

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Citation (search report)

- [X] US 2005016585 A1 20050127 - MUNZER ADOLF [DE]
- [X] US 2001050404 A1 20011213 - SAITO YOSHIMITSU [JP], et al
- [A] NIJS J ET AL: "Overview of solar cell technologies and results on high efficiency multicrystalline silicon substrates", SOLAR ENERGY MATERIALS AND SOLAR CELLS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 48, no. 1-4, 1 November 1997 (1997-11-01), pages 199 - 217, XP004111851, ISSN: 0927-0248, DOI: 10.1016/S0927-0248(97)00103-7

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